

1. (Amended) A film-forming method of supplying gaseous molecules, each composed of plural atoms, onto a substrate, said film-forming method comprising:

providing a substrate;

providing a mixture of an inert gas component containing at least one of a Kr gas and a Xe gas and a gas component containing said gaseous molecules;

generating a plasma of said mixture, to excite molecules of said inert gas, and thus, to excite said gaseous molecules through the collision between said excited molecules of said inert gas and said gaseous molecules to metastable excited state which is required to dissociate said gaseous molecules into their respective elements; and

supplying said elements of said gaseous molecules onto said substrate.

6. (Amended) A film-forming method as defined in claim 5, wherein at least a part of the silicon elements constituting the silicon compound are dissociated into silicon elements.

8. (Amended) A film-forming method as defined in claim 7, wherein the inert gas is krypton gas and the gaseous molecules are oxygen molecules to be dissociated into an oxygen element to oxidize the substrate.

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9. (Amended) A film-forming method as defined in claim 7, wherein the inert gas is xenon gas and the gaseous molecules are oxygen molecules to be dissociated into oxygen elements to oxidize the substrate.

10. (Amended) A film-forming method of supplying gaseous molecules, each composed of plural atoms, onto a substrate, said film-forming method comprising:

providing a substrate;

providing a mixture of an inert gas component containing at least one of a Kr gas and a Xe gas and a gas component containing said gaseous molecules,

generating a plasma of said mixture, to excite molecules of said inert gas, and thus, to excite said gaseous molecules through the collision between said excited molecules of said inert gas and said gaseous molecules to metastable excited state which is

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required to dissociate said gaseous molecules into their respective elements; and

supplying said elements of said gaseous molecules onto said substrate,

said substrate being a silicon substrate;

said gaseous molecules containing Si elements and nitrogen molecules to be dissociated into their respective elements;

said inert gas component further containing He gas.